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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/928,579

08/13/2001

Zoran Petrovic

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04/26/2010

LATHROP & GAGE LLP
4845 PEARL EAST CIRCLE
SUITE 201
BOULDER, CO 80301

EXAMINER

NILAND, PATRICK DENNIS

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

04/26/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@lathropgage.com

Office Action Summary	Application No. 09/928,579	Applicant(s) PETROVIC ET AL.	
	Examiner Patrick D. Niland	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/16/10.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27,29,30,32-70 and 72-92 is/are pending in the application.
- 4a) Of the above claim(s) 84-92 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4,11-27,29,30,32-50,52-70 and 72-83 is/are allowed.
- 6) ☒ Claim(s) 5-10 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/16/10 has been entered.

The amendment of 2/16/10 has been entered. Claims 1-27, 29-30, 32-70, and 72-92 are pending. Claims 84-92 are withdrawn as being drawn to a non-elected invention.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 51 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed “soy-polyol”, does not reasonably provide enablement for all of the “soy-polyols” encompassed by the instant claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A. The instant claims recite “soy-polyol” without the disclosure enabling all of the infinite number of encompassed “soy-polyol”. The claims encompass all possible “soy-polyols”, e.g. all possible derivations to soy oil which results in polyol. The instantly claimed “soy-polyol” reads on an infinite number of compounds resulting from the potentially infinite number of processes. In re Wands has 8 criteria, (MPEP 2164.01(a)), as shown below.

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(A)The breadth of the claims;

(B)The nature of the invention;

(C)The state of the prior art;

(D)The level of one of ordinary skill;

(E)The level of predictability in the art;

(F)The amount of direction provided by the inventor;

(G)The existence of working examples; and

(H)The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

It is noted that the instant claims read on all potential “soy-polyols” which encompasses an infinite number of compounds (Wands factor A). The specification does not describe how to make all such “soy-polyols”, how to add them to the claimed compounds, nor how to select those “soy-polyols” from the infinite list thereof which will function as required in the instant invention (Wands factors F, G). It would require an infinite amount of experimentation to determine how to make all of the “soy-polyols” encompassed by the instant claims but not disclosed in the enabling specification and another infinite amount of experimentation to determine which of these “soy-polyols” would function in the instantly claimed invention as required (Wands factor H). Chemistry is an unpredictable art (Wands factor E). The ordinary skilled artisan has not imagined nor figured out how to make all of the “soy-polyols” encompassed by the instant claim of “soy-polyol” yet (Wands factors C, D, E, F, G, and H). The enabling disclosure is not commensurate with the full scope of the claimed “soy-polyol”.

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There are an infinite number of chemical reactions which can be performed on soy to give an infinite number of “soy-polyols”. The enabling disclosure does not disclose the vast majority of these “soy-polyols” encompassed by the instant claims nor teach how to make them. The skilled artisan has not even imagined what they are yet. It is these undisclosed soy-polyols which are not disclosed by the instant specification but are encompassed by the instant claim language which are subject to this rejection, in answer to the applicant's query in this regard.

See *Sitrick v Dreamworks, LLC* (Fed Cir, 2007-1174, 2/1/2008)

Before MICHEL, Chief Judge, RADER and MOORE, Circuit Judges.

MOORE, Circuit Judge.

112(1) Enablement - The enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation

We review the grant of summary judgment de novo. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1377 (Fed. Cir. 2007). Summary judgment is appropriate “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(c). Whether a claim satisfies the enablement requirement of 35 U.S.C. § 112, ¶ 1 is a question of law, reviewed de novo, based on underlying facts, which are reviewed for clear error. *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1238-39 (Fed. Cir. 2003). The evidentiary burden to show facts supporting a conclusion of invalidity is one of clear and convincing evidence because a patent is presumed valid. Id. The

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“enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation.” Id. at 1244.

112(1) Enablement - The full scope of the claimed invention must be enabled.

A patentee who chooses broad claim language must make sure the broad claims are fully enabled.

The full scope of the claimed invention must be enabled. See Auto. Techs. Int’l, Inc. v. BMW of N. Am., Inc., 501 F.3d 1274, 1285 (Fed. Cir. 2007). The rationale for this statutory requirement is straightforward. Enabling the full scope of each claim is “part of the quid pro quo of the patent bargain.” AK Steel, 344 F.3d at 1244. A patentee who chooses broad claim language must make sure the broad claims are fully enabled. “The scope of the claims must be less than or equal to the scope of the enablement” to “ensure[] that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims.” Nat’l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc., 166 F.3d 1190, 1195-96 (Fed. Cir. 1999).

The examiner has met the requirements of *In re Wands* above. The applicant’s rebuttal thereof is not persuasive for the reasons stated above. The applicant's arguments regarding some of the above considerations of the *Wands* factors that quantity of experimentation is but one factor is not persuasive because all of the factors are discussed above. The applicant's arguments regarding US Pat. No. 6107433 are not persuasive because the instant claims are not limited to the soy-polyols of that patent. The arguments that the instant application has many working examples are not persuasive because these examples are not commensurate in scope with the instant claims. The exemplified polyols would be considered the portion of scope that is

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enabled. The other scope, e.g. the non-enabled scope is subject to this rejection. Applicant's arguments regarding Sitrick are not persuasive. The examiner notes that he is of little skill in the art subject of Sitrick but could edit the movie accordingly frame by frame with Photoshop (R) or commercially available editing software. The examiner has much experience in the instant art and has not imagined, nor has anyone else imagined, the full scope of soy-polyol encompassed by the instant claims. Making all of these polyols is equally challenging and equally unenabled. If the court required the degree of enablement in the subject matter of Sitrick, it would clearly require at least that in this instance, particularly given the difficulty and unpredictability and scope of the instantly claimed subject matter relative to the subject matter of Sitrick. There is no probative evidence that all soy-polyols encompassed by the instant claims have substantially similar chemical character. This is not expected given the scope of the term. There is no evidence that all soy-polyols have substantially similar properties. That all vegetable oils have substantially similar chemical structure is not relevant to this rejection, even if true, which is doubtful. The difference between results from consuming castor oil verses corn oil are evidence of this.

The particulars of the instant situation are described above, which the examiner maintains creates a much more difficult process of making the non-enabled scope of the instantly claimed invention than occurred in the cited case law, for the reasons stated above. The cited caselaw clearly requires "The full scope of the claimed invention must be enabled." The applicant provides no evidence that the entire scope of "soy-polyol" is enabled. For the reasons stated above, the examiner maintains that the full scope of "soy-polyol" is not enabled. The examiner cannot exemplify those "soy-polyols" that are not enabled because he can't think of the non-

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enabled ones yet. It is those "soy-polyols" that are not disclosed, i.e. are not enabled that are subject of this invention. If he could think of non-enabled "soy-polyols", he would pursue options that allowed him to patent them. Applicant's arguments regarding the cited case law are not persuasive therefore.

The applicant's arguments have been fully considered but are not persuasive for the reasons stated above. This rejection is maintained.

5. Claims 5-10 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed "unsaturated derivative of a vegetable oil" and "soybean oil derivative", does not reasonably provide enablement for all of the "unsaturated derivative of a vegetable oil" and "soybean oil derivative" encompassed by the instant claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A. The instant claim 5 recites "unsaturated derivative of a vegetable oil" and "soybean oil derivative" without specifying the "unsaturated derivative of a vegetable oil and "soybean oil derivative"". Therefore the claims encompass all possible "unsaturated derivative of a vegetable oil" and "soybean oil derivative". The instantly claimed "unsaturated derivative of a vegetable oil" and "soybean oil derivative" read on an infinite number of compounds resulting from the potentially infinite number of derivations which can be performed on the recited compounds. In re Wands has 8 criteria, (MPEP 2164.01(a)), as shown below.

(A)The breadth of the claims;

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- (B)The nature of the invention;
- (C)The state of the prior art;
- (D)The level of one of ordinary skill;
- (E)The level of predictability in the art;
- (F)The amount of direction provided by the inventor;
- (G)The existence of working examples; and
- (H)The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

It is noted that the instant claims read on all potential “unsaturated derivative of a vegetable oil” and “soybean oil derivative” which encompass an infinite number of compounds (Wands factor A). The specification does not describe how to make all such “unsaturated derivatives of a vegetable oil” and “soybean oil derivative”, how to add them to the claimed compounds, nor how to select those “unsaturated derivatives of a vegetable oil” and “soybean oil derivative” from the infinite lists thereof which will function as required in the instant invention (Wands factors F, G). It would require an infinite amount of experimentation to determine how to make all of the “unsaturated derivative of a vegetable oil” and “soybean oil derivative” encompassed by the instant claims and another infinite amount of experimentation to determine which of these “unsaturated derivative of a vegetable oil” and “soybean oil derivative” would function in the instantly claimed invention as required (Wands factor H). Chemistry is an unpredictable art (Wands factor E). The ordinary skilled artisan has not imagined nor figured out how to make all of the “unsaturated derivative of a vegetable oil” and

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“soybean oil derivative” encompassed by the instant claim of “unsaturated derivative of a vegetable oil” and “soybean oil derivative” yet (Wands factors C, D, E, F, G, and H). The enabling disclosure is not commensurate with the full scope of the claimed “unsaturated derivative of a vegetable oil” and “soybean oil derivative”.

See *Sitrick v Dreamworks, LLC* (Fed Cir, 2007-1174, 2/1/2008), particularly

“Before MICHEL, Chief Judge, RADER and MOORE, Circuit Judges.
MOORE, Circuit Judge.”

112(1) Enablement - The enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation

We review the grant of summary judgment *de novo*. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1377 (Fed. Cir. 2007). Summary judgment is appropriate “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(c). Whether a claim satisfies the enablement requirement of 35 U.S.C. § 112, ¶ 1 is a question of law, reviewed *de novo*, based on underlying facts, which are reviewed for clear error. *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1238-39 (Fed. Cir. 2003). The evidentiary burden to show facts supporting a conclusion of invalidity is one of clear and convincing evidence because a patent is presumed valid. *Id.* The “enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation.” *Id.* at 1244.

112(1) Enablement - The full scope of the claimed invention must be enabled.
A patentee who chooses broad claim language must make sure the broad claims are fully enabled.

The full scope of the claimed invention must be enabled. See *Auto. Techs. Int’l, Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1285 (Fed. Cir. 2007). The rationale for this statutory requirement is straightforward. Enabling the full scope of each claim is “part of the *quid pro quo* of the patent bargain.” *AK Steel*, 344 F.3d at 1244. A patentee who chooses broad claim language must make sure the broad claims are fully enabled. “The scope of the claims must be less than or equal to the scope of the enablement” to “ensure[] that the public knowledge is enriched by the patent specification to a degree at

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least commensurate with the scope of the claims.” Nat’l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc., 166 F.3d 1190, 1195-96 (Fed. Cir. 1999).”

Claims 5 and 6 are rejected because the derivations required by “derivative” are not specified, creating the above lack of enablement for the full scope of the claim for the reasons stated above.

6. Claims 5-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is unclear if the “unsaturated derivative of a vegetable oil” and “soybean oil derivative” of the instant claims 5 and 6 are intended to be additional components to the vegetable oil-based polyols of the instant claims 5 and 6 in addition to the recited vegetable oil-based polyols specified in claim 1 or are intended to be the vegetable oil-based polyols of the instant claims 5 and 6. In the latter case, “derivative” of the instant claims 5 and 6 encompasses “vegetable oil-based polyols” other than those of the instant claim 1, from which claims 5 and 6 depend. It is therefore unclear how claims 5 and 6 further limit claim 1, since this latter interpretation would broaden the scope of claim 1 in the instant claims 5 and 6.

It is further unclear what is intended by “derivative” of the instant claims 5 and 6 because the claims do not recite the derivations. It is unclear if derivations include, for example, pyrolysis of the vegetable oil into water followed by initiating polyether formation with the water and alkylene oxides such as ethylene or propylene oxides to give polyols.

7. Claims 1-4, 11-27, 29-30, 32-50, 52-70, and 72-83 would be allowable, for reasons of record, if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Friday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Patrick D Niland/
Primary Examiner
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